NOAA Teacher at Sea
Philip J. Hertzog
Onboard NOAA Ship RAINIER
July 24 - August 13, 2005

Log 17

Day 17: August 10, 2005
Time: 1600 hours
Latitude: 56˚ 10.14'N
Longitude: 158˚ 54.8' W
Visibility: 10 nm
Wind Direction: light
Wind Speed: airs
Sea Wave Height: 0 feet
Sea Water Temperature: 13.3˚ C
Sea Level Pressure: 1028.5 mb
Cloud Cover: 8, stratus, altostratus, cirrus

Science and Technology Log

With Mitrofania Island far behind, we transited the deep waters of the Gulf of Alaska towards Kodiak Island. The RAINIER rolled during the night as we stopped to take a CTD cast and run a six-hour sonar line on channel approaches to the Semidi Islands. Few people slept well and the crew talked very little at breakfast due to the exhaustion of three strait weeks of solid work.

RAINIER's crew works a hard 10 to 12 hours each day, but they do receive overtime pay. Paul Fletcher, the Chief Yeoman, told me he has seen young people out here make enough money to pay for college if they save money and keep expenses down. Paul noted that the overtime and sea duty pay make up for low base wages. In addition you get three meals a day, housing, and you don't need to carry full car insurance while out to sea for 200-plus days each year.

As mentioned in an earlier entry, the crew of the RAINIER consists of two groups: NOAA Corps Officers and civilians. Let's focus on the civilian portion today. Six departments employ the crew of the RAINIER. Some of the positions on board require a college degree, while others only require a high school diploma and a willingness to work hard.

I worked most closely with the Survey Department while on board the RAINIER. The Department consists of survey technicians who go out on the launches to operate the sonar and then computer process the data on board the ship and generate maps of the ocean bottom. Several levels of hydrographic survey technicians exist depending on one's experience and training. You generally need a four-year college degree with an emphasis in computer science or remote sensing, but two-year degrees with specialized computer training will also suffice. Survey technicians I introduced to you in previous entries include Greg King, and the Boles brothers (Matt and Dan).

Though at first it may seem like a dirty and tedious job, the people of the Deck Department love their work. Over the years people have actually transferred from other departments to work the deck crew. Deck employees maintain the exterior and interior of the ship, moor and anchor the ship, secure lines, load supplies, stand watches, steer the ship, swab the decks and clean bathrooms. More experienced deck staff also get to drive the launches and serve as coxswains.

One starts out as a deck crew member in the position of Ordinary Seaman (OS) or general vessel assistant (GVA). OS's and GVA's need a high school diploma, need to be at least 18 years old, but don't need prior experience. You can then move up to endorsed positions by meeting time and training requirements set by the US Coast Guard. The RAINIER provides on-the-job training and sends crew to workshops when in port so one can move up to higher positions. With training and 365 days at sea, one can be promoted to Able Seaman. More advanced positions include Seaman Surveyor and Chief Boatswain. Here are some photos of the deck crew in action (left: Megan Guberski, middle: Jodie Edmond, right: mooring the ship):



Left: Correy Muzzey drives a launch, Right: Getting ready to set anchor:


The Engineer Department operates all of the ship's systems such as propulsion, fuel, electric power, ventilation, sanitation, water, and launch motors. This Department has

the highest paying jobs on board the RAINIER, but also the most responsibility to keep the crew safe by making sure the engines don't fail while at sea. Some positions require special licenses (for example Diesel Engine 2400 horse power Class II), but many people start out with a high school degree and work their way up by learning on the job. You can start out with no experience as a Wiper (wipe and clean up oil) and then move up to an Oiler after a year of experience. One can move into the higher level positions right away if you have trade training from high school or a Vocational/Technical school. The photo to the right shows Mike Riley, who is in charge of the motors on all the launches.

Mike also checks the launch hulls for cracks and makes safety recommendations on whether or not a launch should go out to survey. Mike is in his mid twenties and an expert fisherman while off duty. Engineering is a great place for those who are mechanically inclined and love repairing machinery.

The Steward Department plans menus, prepares meals, maintains the galley and provides clean linens for the ship. You can start out as General Vessel Assistant with no experience plus a high school diploma and then train and work your way up to higher-level positions such as Cook or Chief Steward. Prior experience in on-shore restaurants or culinary schools can land you a higher-level position right away. Sergio Taguba, our Chief Steward, started out at an entry-level position 35 years ago and worked his way into the top position. Sergio has been on board the RAINIER for almost the whole time and plans to continue with NOAA until retirement.

Our Chief Cook, Raul Quiros, learned his skills on board ship and started right after finishing school. Raul has been with NOAA for 25 years and on the RAINIER for the past nine. Raul enjoys working for NOAA and can be spotted fishing off the side deck any time he's not on duty. When we first got to Cushing Bay, I spotted Raul catching our first halibuts, but he quietly took them below and never brags about his catches. The crew suspects Raul has caught more fish than any other person on board, but he shies away from any attention to his renowned skills. Above is a photo of Raul in the kitchen and below are some of our galley:

The last two departments, Yeoman and Electronics, each have one person. Paul Fletcher is the RAINIER's Chief Yeoman. A Yeoman is like a business manager on land. Mr. Paul (as everyone on board calls him) handles the ship's budget, payroll, personnel paper work, and mail. He works directly with the Commanding Officer and Executive Officer of the ship. Mr. Paul lives in Virginia Beach, VA when not on the ship and plans to retire there in December. Mr. Paul retired from the Navy and joined NOAA around 1990-91. He has been with the RAINIER since 1996.

Mr. Paul feels NOAA provides young people with an opportunity to learn about life and personnel management on board a ship. He feels more young people from urban areas like Tacoma (where I teach) should try life at sea for a couple of years and gain skills that will help them to be good managers. When on a ship, you are with your boss and coworkers 24/7, Mr. Paul told me. "You learn how to suck up your anger, because the person you're angry with may be in the shower stall next to you or at the same meal table a few hours later." Above is a picture of Chief Yeoman Paul Fletcher in his office.

Larry Wooten runs our Electronics Department and maintains all electronic equipment and computers onboard. Larry told me the Electronics Department really has evolved over the past few years to a mix of skills especially in computers. Larry makes sure the sonar and radar systems work and then he turns around to operate the computer's file server. After serving in the Air Force, Larry went to South Dakota State University to earn a degree in Electronic Engineering Technology. He has been with NOAA seven years and on board

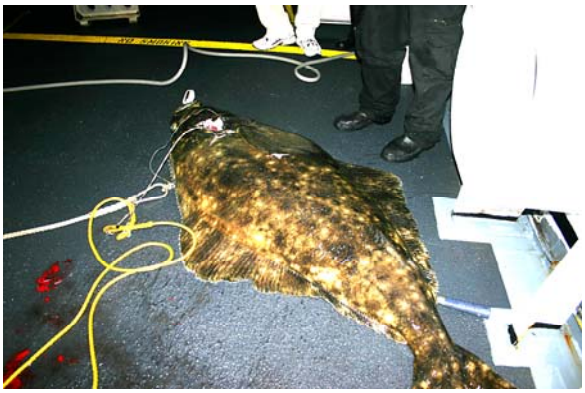
the RAINIER for two. Larry's guitar always sits in the corner of his office and I hear from the crew he plays well during jam sessions held below deck when off duty. Above is a photo of Larry.

I hope the students reading this entry have gotten a good feel for the positions on board the RAINIER and other NOAA ships. Many people stay for their entire careers on a ship, while others stay a year or two to gain valuable experience and then move on to other ventures.

Personal Log

I think the NOAA ships offer a unique opportunity for many of my students to consider. We have a diverse, multicultural crew on board with African Americans, Hispanics, Asian American and women. The jobs range from those requiring college degrees to high school diplomas. Learning aboard the RAINIER occurs continuously as older staff mentor younger crewmembers on the skills they need to advance. I can see both my "hands on" and "cerebral" students finding challenges and adventure on a NOAA ship. If only for a year or an entire career, I could see my students getting valuable skills on board ships that will serve an entire life time.

On other matters, we did get a break from our long transit to Homer last night around 8:30 pm. We stopped at Albatross Banks, an underwater pinnacle that rises up from the ocean bottom to about 48 feet below the surface. We took out our fishing poles and soon caught large halibuts off the bottom. I caught one on my first cast and almost everyone reached their limit in a matter of minutes. Josh Riley caught one over 77 inches long that weighed over 200 pounds. It took four people to haul it onto the fan tail. Here's Josh's fish and a second photo of Dan Boles cleaning a halibut:



Question of the Day

Why are underwater pinnacles a good place to catch fish compared to deeper, flat bottoms?